## Actuarial Valuation Report

# City of Rockville Defined Benefit Pension Plan 4-45822

Plan year beginning 04/01/2009 and ending 03/31/2010

#### For Additional Information

If you have any questions about the material covered in this report, please contact your Pension Actuarial Analyst, Matt Sampogna, by:

- Phone 1-800-557-6627 extension 9692, or 412-394-9692
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This actuarial valuation report is for the defined benefit retirement plan named on the cover of this report. It may only be provided to other parties in its entirety. The purpose of this report is to provide you with information to fund the benefits of the plan as described in your plan document. It is based on employee data and other information you provide.

# Executive Summary

section starts next page



## **Executive Summary**

#### **Current Year Costs**

The following is a synopsis of your plan costs for the current year, including the contribution required and due dates.

The Annual
Required
Contribution
for your plan
this year is
\$2,511,751

- This annual required contribution is in addition to employee contributions.
- The annual required contribution represents a minimum deposit level.
- Annual required contribution is significantly higher than in 2008 due to asset losses.

# Deposit Information A summary of the results of the actuarial valuation is as follows: Total normal cost plus expenses \$ 1,970,177 Employee normal cost (expected employee contributions) 621,785 Employer normal cost 1,348,392 Total normal cost as a percentage of total member compensation 6.21% Annual required contribution (ARC) 2,511,751 ARC as a percentage of total member compensation 7.92%

#### **Analysis**

Like many pension plans, the City of Rockville Defined Benefit Pension Plan assets experienced sizeable losses in the past year. While the change in overall liability was consistent with expectations, the asset experience resulted in an increase in the unfunded actuarial accrued liability. This produced an actuarial loss and a greater annual required contribution.

The asset method used for the valuation smooths asset gains and losses over four years, which reduces the impact of the market decline on the 2009 results. However, the deferred asset losses must be recognized in future years. Unless the plan experiences significant asset gains, the result will be higher required contributions in the future.

For the first time this year, we have included a three year projection of the annual required contributions of the plan. This may be found on beginning on page 11.

#### **Changes from Prior Valuation**

For the past several years, cost of living increases were granted to current retirees. However, no such cost of living increase was established in 2009. Therefore, this report reflects the same benefit amounts for current retirees as the prior valuation.

#### Deposits Received

We have received employee deposits totaling \$245,758 for the April 1, 2009 plan year as of 07/28/2009. Historically, the City of Rockville has made employer contributions in the last month of the plan year.

#### **Funding Method**

The entry age normal cost method is used for this valuation. This method estimates the total cost of all projected plan benefits based on the assumptions shown in this report and the participant data you have supplied.

Costs are spread evenly from a member's date of hire to assumed retirement age. This annual cost is spread as a level percentage of compensation. The sum of each member's annual cost is the normal cost of the plan.

The value of accumulated costs for past years is the actuarial accrued liability (AAL). Each year the unfunded actuarial accrued liability (UAAL) is the AAL less the actuarial value of assets, not less than zero.

The annual required contribution is equal to the normal cost of the plan, plus a 20-year amortization of the plan's UAAL.

#### **Supplemental Employee Contributions**

As of April 1, 2009, if the City contribution to the defined benefit plan on behalf of Administrative and Union employees exceeds 6.5% of the earnings of those employees, the City may, at its discretion, impose a "Supplemental Employee Contribution" for the following year.

The amount of the Supplemental Employee Contribution is limited to no more than 50% of the excess of the City contribution over 6.5% of the earnings of the administrative and union employees.

Beginning this year, we will provide estimated Supplemental Employee Contributions in our valuation report.

If you have any questions about any of the material covered in this report, please contact a member of your team at The Principal.

Your Pension Actuarial Analyst is Matt Sampogna
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Email – Sampogna.Matt@principal.com

# Funding Calculations

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# **Funding Calculations**

#### **Deposit Information**

| Normal Cost   |                                      |                                      |  |  |  |
|---|--------------------------------------|--------------------------------------|--|--|--|
| Total normal cost   | <b>April 1, 2009</b><br>\$ 1,970,177 | <b>April 1, 2008</b><br>\$ 1,749,803 |  |  |  |
| Employee normal cost (expected contributions from employees not yet eligible for normal retirement) | 621,785                              | 561,417                              |  |  |  |
| Employer normal cost  | 1,348,392                            | 1,188,386                            |  |  |  |
| Total annual member compensation  | 31,708,344                           | 27,780,990                           |  |  |  |
| Total normal cost as a percentage of member compensation  | 6.21%                                | 6.30%                                |  |  |  |
| Annual Required (   | Contribution                         |                                      |  |  |  |
| Employer normal cost  | <b>April 1, 2009</b><br>\$1,348,392  | <b>April 1, 2008</b><br>\$1,188,386  |  |  |  |
| Amortization amounts  | 982,700                              | 276,901                              |  |  |  |
| Valuation interest to the end of the plan year  | <u>180,659</u>                       | <u>113,366</u>                       |  |  |  |
| Annual required contribution (ARC)  | \$2,511,751                          | \$1,578,653                          |  |  |  |
| ARC as a percentage of member compensation  | 7.92%                                | 5.68%                                |  |  |  |

The annual required contribution is in addition to employee contributions.

#### **Development of Deposit Information**

#### **Development of Normal Cost**

Normal cost is the portion of cost assigned to each year. Under the entry age normal cost method used in this valuation, each member's annual cost is calculated as described in the Assumptions and Methods section. The sum of the annual costs for all members plus an estimate of plan expenses to be paid from the fund is the total normal cost for the year.

| a) | Normal cost for Administrative Personnel and Union | \$ 1,455,422 |
|----|--|--------------|
| b) | Normal cost for Police                             | 512,055      |
| c) | Estimated expenses (1)                             | 2,700        |
| d) | Total normal cost (a+b+c)                          | \$1,970,177  |

<sup>(1)</sup> Expenses are allocated between groups based on the ratio of participants per group to the total number of participants in the plan.

#### Unfunded Actuarial Accrued Liability

| a)<br>b)<br>c)<br>d) | Unfunded actuarial accrued liability (as of 04/01/2008)<br>Changes made during the plan year<br>Employer normal cost (as of 04/01/2008)<br>Interest on the above items | \$ 2,984,662<br>0<br>1,188,386<br>323,411 |
|----------------------|--|---|
| e)                   | Total (a+b+c+d)  | \$ 4,496,459                              |
| f)<br>g)             | Employer contributions Interest on employer contributions  | \$ 1,981,817<br>7,715                     |
| h)                   | Total (f+g)  | \$ 1,989,532                              |
| i)                   | Expected unfunded actuarial accrued liability (as of 04/01/2009) (e-h)   | \$ 2,506,927                              |
| j)<br>k)             | Actuarial accrued liability Actuarial value of assets  | \$ 72,290,941<br>61,698,621               |
| l)                   | Actual unfunded actuarial accrued liability (as of 04/01/2009) (actuarial accrued liability less actuarial value of assets) (j-k)                                      | \$10,592,320                              |
| m)                   | Actuarial (gain) or loss (actual less expected unfunded actuarial accrued liability) (I-i)   | \$ 8,085,393                              |

#### **Schedule of Amortization Bases**

Your cost method allocates a portion of plan funding to be amortized in equal annual installments, rather than to be paid through future normal costs. The minimum period over which the bases are amortized are described by law or regulations.

| Date           |   | Remaining<br>Period | Current<br>Unfunded | Minimum<br>Annual   |
|----------------|---|---------------------|---------------------|---------------------|
| <u>Created</u> | <u>Reason</u>                           | (Years)             | <u>Balance</u>      | <u>Amortization</u> |
| 04/01/2009     | Unfunded Actuarial<br>Accrued Liability | 20                  | \$ 10,592,320       | \$ 982,700          |

# Funding Projections

section starts next page

#### **Annual Required Contribution Projections**

As part of the actuarial valuation this year, we have projected contribution estimates into the future based on current year results. These estimates utilize the same assumptions and census data as of 04/01/2009. Additionally, asset returns are assumed to be 7.75% for all future years.

Any deviation in assumptions, census demographics, or asset performance would impact these approximations.

|                                  | April 1, 2009 | April 1, 2010<br>(est.) | April 1, 2011<br>(est.) |
|----------------------------------|---------------|-------------------------|-------------------------|
| Interest Rate                    | 7.75%         | 7.75%                   | 7.75%                   |
| Return on Market Value of Assets |               | 7.75%                   | 7.75%                   |
| Actuarial Accrued Liability      | \$ 72,290,941 | \$ 77,200,000           | \$ 82,530,000           |
| Actuarial Value of Assets        | 61,698,621    | 58,060,000              | 55,230,000              |
| Unfunded Liability               | 10,592,320    | 19,140,000              | 27,300,000              |
| Funded Ratio                     | 85.3%         | 75.2%                   | 66.9%                   |
| Amortization of Unfunded         | 982,700       | 1,780,000               | 2,530,000               |
| Employer Normal Cost             | 1,348,392     | 1,450,000               | 1,570,000               |
| Interest                         | 180,659       | 250,000                 | 320,000                 |
| Annual Required Contribution     | \$ 2,511,751  | \$ 3,480,000            | \$ 4,420,000            |

#### **Employer Thrift Plan Matching Contribution Projections**

For both Union and Administrative Personnel enrolled in the Thrift Plan, employees can contribute 1%, 2%, 3%, 4%, or 5% of earnings to the Thrift Plan. For each \$1.00 contributed by a member, the City of Rockville then contributes \$0.50 to the plan.

While this valuation only reflects the Defined Benefit Plan portion of liabilities, we are able to estimate the cash outlay of the City's matching contribution to the Thrift Plan based on current census data, pay information, salary scale assumptions, and individual employee contribution percentages.

|                              | April 1, 2009 | April 1, 2010 | April 1, 2011 |
|------------------------------|---------------|---------------|---------------|
| Total Pay (Thrift Plan only) | \$ 25,080,000 | \$ 26,420,000 | \$ 27,830,000 |
|                              |               |               |               |
| Employee Contribution        | 1,086,000     | 1,144,000     | 1,206,000     |
| City Matching Contribution   | \$ 543,000    | \$ 572,000    | \$ 603,000    |

#### **Supplemental Employee Contribution Projections**

As documented in the provisions of the plan, the City of Rockville maintains the right to enforce a Supplemental Employee Contribution as it pertains to the defined benefit portion of the pension plan. Specifically, as of any April 1, if the City contribution to the Defined Benefit Option of the plan made on behalf of Administrative or Union employees exceeds 6.50% of the earnings of the Administrative or Union employees, then the City reserves the right to impose a Supplemental Employee Contribution for the following calendar year.

This Supplemental Employee Contribution can be no more than 50% of the excess of the City contribution over 6.50% of earnings for Administrative and Union employees. Such a contribution would be treated as a contribution to the Defined Benefit Option.

|   | April 1, 2009 | April 1, 2010 | April 1, 2011 |
|---|---------------|---------------|---------------|
| Administrative total compensation               | \$ 23,640,832 | \$ 24,890,000 | \$ 26,180,000 |
| Union total compensation                        | 4,172,059     | 4,400,000     | 4,640,000     |
| Total Admin and Union compensation              | \$ 27,812,891 | \$ 29,290,000 | \$ 30,820,000 |
| Total annual required contribution              | \$ 2,511,751  | \$ 3,480,000  | \$ 4,420,000  |
| Allocated ARC to Admin and Union <sup>(1)</sup> | 2,136,370     | 2,960,000     | 3,760,000     |
| ARC as a percentage of compensation             | 7.68%         | 10.10%        | 12.20%        |
| Excess over 6.50%                               | 1.18%         | 3.60%         | 5.70%         |
| 50% of excess                                   | 0.59%         | 1.80%         | 2.85%         |
| Maximum Supplemental Employee<br>Contribution   | \$ 164,096    | \$ 530,000    | \$ 880,000    |

<sup>&</sup>lt;sup>(1)</sup> Allocation of annual required contribution assumes the same percentage attributable to the Administrative and Union employees as outlined in the "Allocation of 2009 Contribution" section of this report. For 2009, this percentage was equal to 85.055%.

# Asset Information

section starts next page



### **Asset Information**

#### **Plan Assets**

We measure your plan's assets at the beginning of each plan year. Contributions you may have already made for the 2009 plan year are not included.

Both market value and actuarial value for the 2009 plan year are shown below. Actuarial value is used for all funding calculations. You can see the derivation of the Actuarial Value on the following page and can identify the reason for any difference between Market Value and Actuarial Value in the Methods Selected by Plan Sponsor section of Assumptions and Methods.

| Market Value of Plan Assets                   |              |
|---|--------------|
| Investments held by Principal Financial Group | \$34,116,755 |
| Investments held by Prudential                | 6,941,220    |
| Total Value                                   | \$41,057,975 |

#### The actuarial value of plan assets is \$61,698,621 for the current year.

The actuarial value of assets spreads investment gains and losses over four years. 75% of the 2008 losses are deferred to future years. As a result, the actuarial value of assets for 2009 is significantly above market value. A full development of this value can be found on the following page.

#### **Development of Actuarial Value of Assets**

To determine the actuarial value of the assets, we have adjusted the market value by:

- Subtracting any remaining deferred appreciation in excess of expected investment earnings.
- Adding any remaining deferred appreciation short of expected investment earnings (shortfall).

Of the total excess appreciation or shortfall for any one plan year, 25% is allocated to the current plan year and each of the next three plan year.

| ,  | Market value of assets as of 04/01/2008 Contributions / transfers Benefit payments Expenses Expected interest on (a), (b), (c), and (d) | \$ 59,978,049<br>2,673,820<br>(2,710,852)<br>(2,700)<br>4,571,147 |
|----|---|---|
| f) | Expected value of assets as of 04/01/2009 (a+b+c+d+e)   | \$ 64,509,464   |
| g) | Market value of assets as of 04/01/2009   | \$ 41,057,975   |
| h) | Current year excess appreciation / (shortfall)  | (23,451,489)  |
| i) | Adjustment to market value (sum of deferred amounts)  | (20,640,646)  |
| j) | Actuarial value of assets as of 04/01/2009 (g-i)  | \$ 61,698,621   |

| Allocation of Deferred Appreciation                                  |              |              |                |                 |  |
|--|--------------|--------------|----------------|-----------------|--|
|  | an Year      |              |                |                 |  |
| Allocation Year  | 2006         | 2007         | 2008           | 2009            |  |
| 2006   | \$ 450,837   |              |                |                 |  |
| 2007   | 450,836      | \$ 473,331   |                |                 |  |
| 2008   | 450,836      | 473,331      | \$ (1,762,680) |                 |  |
| 2009   | 450,836      | 473,331      | (1,762,680)    | \$ (5,862,873)  |  |
| 2010   |              | 473,330      | (1,762,680)    | (5,862,872)     |  |
| 2011   |              |              | (1,762,680)    | (5,862,872)     |  |
| 2012   |              |              |                | (5,862,872)     |  |
| Total  | \$ 1,803,345 | \$ 1,893,323 | \$ (7,050,720) | \$ (23,451,489) |  |
| Deferred   | \$ O         | \$ 473,331   | \$ (3,525,360) | \$ (17,588,617) |  |
| Adjustment to market value (sum of deferred amounts) \$ (20,640,646) |              |              |                |                 |  |

#### Allocation of Actuarial Value of Assets as of April 1, 2009

|    |   | Admin and<br>Union | Police        | Total         |
|----|---|--------------------|---------------|---------------|
| a) | Actuarial value of assets as of 04/01/2008                                | \$ 53,321,932      | \$ 10,546,659 | \$ 63,868,591 |
| b) | Employee contributions to DB plan<br>04/01/2008 to 03/31/2009             | 350,767            | 341,236       | 692,003       |
| c) | Employer contributions to DB plan <sup>(1)</sup> 04/01/2008 to 03/31/2009 | 1,676,677          | 305,140       | 1,981,817     |
| d) | Benefit payments and expenses (2)<br>04/01/2008 to 03/31/2009             | (2,472,403)        | (241,148)     | (2,713,551)   |
| e) | Allocation basis (a+b+c+d)  | 52,876,973         | 10,951,887    | 63,828,860    |
| f) | Net interest to allocate  | (1,764,728)        | (365,511)     | (2,130,239)   |
| g) | Contribution receivable   | 0                  | 0             | 0             |
| h) | Actuarial value of assets as of 04/01/2009 (e+f+g)                        | \$ 51,112,245      | \$ 10,586,376 | \$ 61,698,621 |

#### Allocation of 2009 Contribution

|  | Admin and<br>Union | Police       | Total         |
|--|--------------------|--------------|---------------|
| 2009 employer normal cost  | \$ 1,146,873       | \$ 201,519   | \$ 1,348,392  |
| Allocation percentage  | 85.055%            | 14.945%      | 100.000%      |
| Allocated Annual Required Contribution   | \$ 2,136,370       | \$ 375,381   | \$ 2,511,751  |
| Total annual member compensation   | \$ 27,812,891      | \$ 3,895,453 | \$ 31,708,344 |
| Allocated ARC as a percentage of compensation                                    | 7.68%              | 9.64%        | 7.92%         |
| Discretionary Supplemental Employee<br>Contribution for next year <sup>(3)</sup> | \$ 164,096         | N/A          | \$ 164,096    |

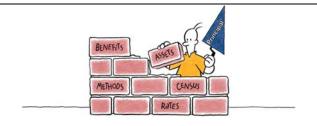
<sup>&</sup>lt;sup>(1)</sup> Total employer contribution of \$1,981,817 split on basis of 2008 employer DB normal cost plus expenses.

<sup>(2)</sup> Benefit payments include retiree payments, as well as lump sum distributions, and expenses. Expenses are allocated to each group based on the total life count for each group as a percentage of the total life count for the entire plan.

<sup>(3)</sup> If the City contribution to the Defined Benefit Option of the Plan made on behalf of the Administrative or Union employees exceeds 6.50% of the earnings for those employees, the City reserves the right to impose a Supplemental Employee Contribution for the following calendar year less than or equal to 50% of the excess of the City contribution over 6.50% of earnings.

# Data and Assumptions

section starts next page



# **Data and Assumptions**

#### Census Characteristics

|                   | 04/01/2008       | 04/01/2009     | Change |
|-------------------|------------------|----------------|--------|
|                   | Number of Covere | d Participants |        |
| Actives           | 502              | 541            | +39    |
| Terminated Vested | 177              | 184            | +7     |
| Retirees          | 165              | 170            | +5     |
| Total             | 844              | 895            | +51    |

|                   | Average Age |      |      |
|-------------------|-------------|------|------|
| Actives           | 44.1        | 44.1 | 0.0  |
| Terminated Vested | 42.9        | 43.5 | +0.6 |
| Retirees          | 68.8        | 69.1 | +0.3 |
| All               | 48.7        | 48.7 | 0.0  |

|         | Average Years of Se | ervice |      |
|---------|---------------------|--------|------|
| Actives | 10.3                | 10.2   | -0.1 |

|                     | Monthly Accrued | d Benefits  |        |
|---------------------|-----------------|-------------|--------|
| Actives (projected) | \$1,910,239     | \$2,180,965 | +14.2% |
| Terminated Vested   | 27,329          | 27,028      | -1.1%  |
| Retirees            | 220,806         | 229,199     | +3.8%  |

#### **Census Reconciliation**

|                         | Police | Admin DB    | Admin TP   | Union<br>DB | Union TP | Total |
|-------------------------|--------|-------------|------------|-------------|----------|-------|
| Active Participants     |        |             |            |             |          |       |
| Count on 04/01/2008     | 53     | 38          | 307        | 3           | 101      | 502   |
| New entrants            | 5      |             | 50         |             | 14       | 69    |
| Plan to plan transfer   |        |             | 2          |             | -2       | 0     |
| Return to active status |        |             |            |             | 2        | 2     |
| Terminated, nonvested   |        |             | -2         |             | -9       | -11   |
| Terminated, vested      | -1     |             | -14        |             |          | -15   |
| Retired with annuity    |        | -2          | -4         |             |          | -6    |
| Death                   |        |             |            |             |          | 0     |
| Count on 04/01/2009     | 57     | 36          | 339        | 3           | 106      | 541   |
|                         |        | Inactive Pa | rticipants |             |          |       |
| Count on 04/01/2008     | 9      | 6           | 140        | 1           | 21       | 177   |
| New and inactive        |        |             | 2          |             |          | 2     |
| Return to active status |        |             |            |             | -2       | -2    |
| Retired with annuity    |        |             |            |             |          | 0     |
| Terminated, lump sum    |        |             | -2         |             | -5       | -7    |
| Terminated, vested      | 1      |             | 14         |             |          | 15    |
| Death                   |        |             |            |             | -1       | -1    |
| Count on 04/01/2009     | 10     | 6           | 154        | 1           | 13       | 184   |
|                         |        | Retired Par | rticipants |             |          |       |
| Count on 04/01/2008     | 6      | 87          | 41         | 26          | 5        | 165   |
| New retired             |        | 3           | 4          |             |          | 7     |
| Death                   |        | -1          | -1         | -2          |          | -4    |
| Beneficiary             |        | 1           |            | 1           |          | 2     |
| Fixed period ends       |        |             |            |             |          | 0     |
| Count on 04/01/2009     | 6      | 90          | 44         | 25          | 5        | 170   |

#### **Plan Provisions**

This report reflects the maximum benefit limits under Internal Revenue Code (IRC) Section 415 and maximum compensation limits under IRC Section 401 in effect on the first day of each plan year.

The following is a summary of plan provisions and does not alter the intent or meanings of the provisions contained in the contract or plan document. This report reflects the provisions of the plan effective 12/18/2006.

|                             | Plan Eligibility   |  |
|-----------------------------|--|--|
|                             | Defined Benefit Option   | Thrift Plan Option   |
| Administrative<br>Personnel | Hired prior to 04/15/1986 and elected not to transfer to Thrift Plan.  | Hired prior to 04/15/1986 and elected to transfer from Defined Benefit Option or hired on or after 04/15/1986. |
| Union Employees             | Hired prior to 12/02/1986 and elected not to transfer to Thrift Plan.  | Hired prior to 12/02/1986 and elected to transfer from Defined Benefit Option or hired on or after 12/02/1986. |
| Police Employees            | All Police employees are eligible for the Defined Benefit Option only. | N/A  |

| Normal Retirement Benefit                          |  |                    |  |
|--|--|--------------------|--|
| Form   | All employees will receive a monthly annuity guaranteed for ten years and life thereafter. Optional forms may be elected in advance of retirement. |                    |  |
| Age  | Defined Benefit Option   | Thrift Plan Option |  |
| Administrative<br>Personnel and<br>Union Employees | Attained age 60.   | Attained age 60    |  |
| Police   | Earlier of attained age 60 or 25 years of service  | N/A                |  |
|  |  |                    |  |

| Amount (accrued benefit) | Defined Benefit Option  | Thrift Plan Option   |
|--------------------------|---|--|
| Union Employees          | 1.8% of average earnings times credited service.  | The sum of (i), (ii), and (iii):  1.8% of average earnings times credited service prior to 01/01/1987  i) 1.0% of average earnings times credited service after 12/31/1986  ii) Actuarial equivalent of a lump sum payment of members Thrift Plan Option vested account balance. Member may elect a cash distribution or combination of cash and annuity   |
| Administrative Personnel | The sum of (i) and (ii):  1.8% of average earnings times credited service prior to 04/01/1996.  i) 2.0% of average earnings times credited service on or after 04/01/1996.    | <ul> <li>The sum of (i), (ii), and (iii), and (iv):</li> <li>1.8% of average earnings times credited service prior to 04/01/1986.</li> <li>1.0% of average earnings times credited service after 04/01/1986 and prior to 04/01/1996.</li> <li>1.2% of average earnings times credited service on or after 04/01/1996.</li> <li>Actuarial equivalent of a lump sum payment of members Thrift Plan Option vested account balance. Member may elect a cash distribution or combination of cash and annuity</li> </ul> |
| Police Employees         | The lesser of (i) and (ii):  2.0% of average earnings times credited service up to 04/01/2004, plus 2.25% of average earnings times credited service on and after 04/01/2004. |  |

|  | ii) 67.5% of average earnings.  |  |
|--|---|--|
|  | Early Retirement Benefit  |  |
| Age  | Attained age 50.  |  |
| Service                                      | Ten years of credited service   |  |
| Form   | Same as normal retirement benefit.  |  |
| Amount                                       | Accrued benefit on early retirement date reduced to reflect that payments begin prior to normal retirement date.  |  |
| Reduction<br>Factors:                        |   |  |
| Administrative Personnel and Union Employees | ¼ of 1% for each month the benefit commences prior to normal retirement date.   |  |
| Police                                       | 6/10 of 1% for each month during the first sixty months and 3/10 of 1% for each month during the next sixty months the benefit commences prior to normal retirement date. |  |

| Late Retirement Benefit |  |
|-------------------------|--|
| Age                     | No maximum age                           |
| Form                    | Same as normal retirement benefit.       |
| Amount                  | Accrued benefit on late retirement date. |

|             | Deferred Vested Benefit  |
|-------------|--|
| Eligibility | Termination of employment after ten years of credited service.   |
| Form        | Same as normal retirement benefit with income deferred until normal retirement date.   |
| Amount      | Accrued benefit as of date of termination.  In lieu of receiving a retirement benefit, an employee may elect to receive a lump sum payment equal to that which the employee would have received under the Termination Benefit below. |

| Termination Benefit |   |                                       |   |  |
|---------------------|---|---------------------------------------|---|--|
|                     | Defined Benefit Option  |                                       | Thrift Plan Option  |  |
| Eligibility         | Termination of employment prior to early or normal retirement date and before completing ten years of credited service.   |                                       | Termination of employment prior to early or normal retirement date and before completing seven years of credited service. |  |
| Form                | Lump sum paymer   | nt.                                   | Lump sum payment.   |  |
| Amount              | The sum of (i) and (ii):  i) Employee contributions plus interest.  ii) A portion of the City's contributions plus credited interest according to the following schedule: |                                       | Vested account balance.   |  |
|                     | Years of Credited<br><u>Service</u>   | Percent of City<br>Share Earned       |   |  |
|                     | Less than 5 5 6 7 8 9 10 and over   | 0%<br>50%<br>60%<br>70%<br>80%<br>90% |   |  |
|                     | City contributions are deemed to be 150% of the employee's contributions plus interest.   |                                       |   |  |

| Survivor Annuity Death Benefit |  |  |  |
|--------------------------------|--|--|--|
| Eligibility                    | Qualified married participant with ten years of credited service.  |  |  |
| Form                           | Monthly annuity payable to spouse, deferred to participant's earliest retirement date if later than the date of death.   |  |  |
| Amount                         | If death occurs, the amount paid to the surviving spouse is equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her earliest retirement age, retired with a qualified joint and 50% survivor annuity in effect, then died the next day. |  |  |

| Lump Sum Death Benefit |   |                         |  |  |
|------------------------|---|-------------------------|--|--|
| Eligibility            | Not eligible for the Survivor Annuity Death Benefit described above.  |                         |  |  |
| Form                   | Lump sum payment to beneficiary   |                         |  |  |
|                        | Defined Benefit Option Thrift Plan Option   |                         |  |  |
| Amount                 | Employee contributions plus credited interest.  | Vested account balance. |  |  |
|                        | In lieu of any other death benefit, the deceased employee's beneficiary may elect to receive a lump sum payment equal to that which the employee would have received under the Termination Benefit described above. |                         |  |  |

| Contributions               |   |  |  |  |
|-----------------------------|---|--|--|--|
| Employees                   | Defined Benefit Option  | Thrift Plan Option <sup>(1)</sup>  |  |  |
| Union                       | 4.2% of earnings plus ½ the excess (if any) of the City's contribution over 6.5% of earnings. | 1%, 2%, 3%, 4%, or 5% of earnings.   |  |  |
| Administrative<br>Personnel | 5.2% of earnings plus ½ the excess (if any) of the City's contribution over 6.5% of earnings. | <ul><li>1.0% of earnings will be contributed to the Defined Benefit portion.</li><li>1%, 2%, 3%, 4%, or 5% of earnings will be contributed to the Thrift Plan portion.</li></ul> |  |  |
| Police                      | 8.5% of earnings.   | N/A  |  |  |
| City                        | Remaining cost of plan.   | \$0.50 for each \$1.00 contributed by member. (Applies to Administrative Personnel and Union employees only.)  |  |  |

| Cost of Living Adjustment |   |  |  |  |
|---------------------------|---|--|--|--|
|                           | Historically, there have been cost-of-living increases given to current retirees. For the 04/01/2009 valuation, however, there have been no cost of living increases since January 1, 2008. |  |  |  |

<sup>(1)</sup> Employee contributions and match of the Thrift Plan Option are described here. However, only the Defined Benefit plan portion of liabilities is reflected in this valuation.

|  | Definitions  |                              |  |  |
|--|--|------------------------------|--|--|
| Credited Prior<br>Service                          | An employee will receive credit for each full year of continuous service and fraction thereof, to the nearest full month, completed from date of employment to July 1, 1969.   |                              |  |  |
|  | The member will receive credited prior service provided employee contributions were made as required by the plan.  |                              |  |  |
| Credited Future<br>Service                         | An employee will receive credit for each full year of continuous service and fraction thereof, to the nearest full month completed from the later of July 1, 1969, or the date member is first included in the plan, to the date of termination or retirement, whichever occurs first. |                              |  |  |
|  | The member will receive credited futur contributions are made as required by   |                              |  |  |
| Credited Service                                   | Sum of credited prior service, if any, an  | nd credited future service.  |  |  |
| Earnings   | The employee's salary or wage at the basic rate of pay, including longevity pay, exclusive of overtime pay, bonuses, and commissions.  |                              |  |  |
| Average Earnings:                                  |  |                              |  |  |
| Administrative<br>Personnel and<br>Union Employees | Average of earnings during the 36 consecutive months of the last 120 months of City employment which produce the highest average.  |                              |  |  |
| Police   | The average annual earnings during the final 60 months of City employment.   |                              |  |  |
|  | Defined Benefit Option Thrift Plan Option  |                              |  |  |
| Interest on<br>Employee<br>Contributions           | 6.0% per year.  In accordance with the terms of investment contract.   |                              |  |  |
| Vested Account                                     | The sum of (i) and (ii):   |                              |  |  |
| Balance  | ) Employee contributions plus cred   | dited interest.              |  |  |
|  | i) The account balance attributable to City contributions with credited interest in accordance with the following:   |                              |  |  |
|  | Years of Credited Service  | Percent of City Share Earned |  |  |
|  | Less than 5<br>5   | 0%<br>50%                    |  |  |
|  | 6  | 60%                          |  |  |
|  | 7  | 70%                          |  |  |
|  | 8  | 80%                          |  |  |
|  | 9  | 90%                          |  |  |
|  | 10 and over  | 100%                         |  |  |

# **Optional Forms of Benefit Payments**

The optional forms of benefit payments are:

- Monthly annuity payable for life, 10 years certain and life
- Monthly annuity payable as a survivorship life annuity with survivorship percentages of 50, 75 or 100
- Single sum payment equal to the present value of the vested accrued retirement benefit

#### **Assumptions and Methods**

#### **Assumptions and Method Changes Since Last Year**

#### **Assumption Changes**

There have been no changes in assumptions or plan provisions since last year other than to reflect changes in maximum benefit limits under Internal Revenue Code (IRC) Section 415 and in maximum compensation limits under IRC Section 401.

| Assumptions Selected by Plan Sponsor |   |  |  |
|--------------------------------------|---|--|--|
| Interest                             | During Benefit Payment Period: 7.75%  |  |  |
|                                      | Before Benefit Payment Period: 7.75%  |  |  |
| Mortality                            | During Benefit Payment Period<br>RP-2000 Combined Mortality Table, male and female, projected to<br>2005 with scale AA.         |  |  |
|                                      | Before Benefit Payment Period<br>RP-2000 Combined Mortality Table, male and female, projected to<br>2005 with scale AA.         |  |  |
| Asset Measure                        | Market value is adjusted by spreading the expected value minus the actual value over four years.                                |  |  |
| Deposits After Plan Year<br>End      | Deposits received in the current plan year, but applied to the prior plan year, are included in the assets at their face value. |  |  |
| Annual Required Contribution         | Normal cost plus 20-year amortization of unfunded actuarial accrued liability with interest to the end of the plan year.        |  |  |
|                                      | Assumptions Selected by Actuary   |  |  |
| Retirement Age                       | Normal Retirement Age as defined in Plan Provisions   |  |  |

| Upcoming Year Salary<br>Increase | The preceding year's salary is increased using the S-5 Table from The Actuary's Pension Handbook, increased by 3.00% at each age for Thrift Plan members, 2.50% at each age for Police members, and 2.00% at each age for Defined Benefit Plan members. This table provides a rate of increase that declines as participants age. |   |                |               |           |
|----------------------------------|---|---|----------------|---------------|-----------|
|                                  |   |   | Up             | coming Incre  | ease      |
|                                  |   | Age   | Thrift Plan    | Police        | DB Plan   |
|                                  |   | 20  | 8.10%          | 7.60%         | 7.10%     |
|                                  |   | 25  | 7.18%          | 6.68%         | 6.18%     |
|                                  |   | 30  | 6.57%          | 6.07%         | 5.57%     |
|                                  |   | 35  | 6.11%          | 5.61%         | 5.11%     |
|                                  |   | 40  | 5.72%          | 5.22%         | 4.72%     |
|                                  |   | 45  | 5.39%          | 4.89%         | 4.39%     |
|                                  |   | 50  | 5.12%          | 4.62%         | 4.12%     |
|                                  |   | 55  | 4.88%          | 4.38%         | 3.88%     |
| Expenses                         |   | Deducted from the fund according to expense scales in Service Agreement. Normal Cost includes estimated expense charge. |                |               |           |
| Disability                       |   | 1987 Commissioner's Group Disability Table, six month elimination period, male and female.                              |                |               |           |
| Marriage                         | 75% n   | narried; hu   | sbands are 3 y | ears older th | an wives. |

No explicit increase is assumed for future years.

Entry age normal.

**Actuarial Cost Method** 

**Cost of Living Increase** 

#### **Withdrawal**

The illustrative rates below were used.

For employees with less than six years of service (excluding those in the Administrative and Union Defined Benefit Plans):

| Service | Admin TP | Union TP | Police |
|---------|----------|----------|--------|
| 0       | .1200    | .1200    | .0800  |
| 1       | .1120    | .1120    | .0720  |
| 2       | .1040    | .1040    | .0640  |
| 3       | .0960    | .0960    | .0480  |
| 4       | .0880    | .0880    | .0400  |
| 5       | .0800    | .0800    | .0320  |

For employees with six or more years of service:

V Table from August 1992 Pension Forum published by the Society of Actuaries, multiplied by 0.90 for Administrative and Union Thrift Plan members, 0.25 for Administrative Defined Benefit members, and 0.25 for Police members.

Sample rates of withdrawal are shown here:

| Age | Admin &<br>Union TP | Admin DB | Police |
|-----|---------------------|----------|--------|
| 20  | .1674               | .0465    | .0465  |
| 25  | .1224               | .0340    | .0340  |
| 30  | .0909               | .0253    | .0253  |
| 35  | .0711               | .0198    | .0198  |
| 40  | .0585               | .0163    | .0163  |
| 45  | .0495               | .0138    | .0138  |
| 50  | .0405               | .0113    | .0113  |
| 55  | .0000               | .0000    | .0000  |

No withdrawal is assumed for the Union Defined Benefit Plan.

#### Retirees

Assets and liabilities for retirees whose benefits are not guaranteed by your contract are included in your valuation.

## Assumptions and Methods Elected by Actuary SFAS No.35

With the exceptions below, all assumptions and methods are the same as those used in determining your plan's regular Actuarial Accrued Liability and Normal Cost.

Interest Rate Used to Value Liabilities

7.75%

# Description of Actuarial Cost Method Entry Age Normal

#### **Ultimate Cost**

The ultimate cost of your pension plan is:

- Benefit payments
- Plus expenses
- Less investment income

This cost cannot be determined until the last benefit has been paid. Regardless of which actuarial cost method is used, the ultimate cost remains the same.

#### Cost Methods

A cost method is a budgeting tool. It helps to ensure that your pension plan is adequately and systematically funded. Cost methods differ based on how they assign an annual cost to the current year and how they treat gains and losses.

#### **Normal Cost**

The portion of cost assigned to each year is called the normal cost. The normal cost may be shared by the employer and the employees based on plan provisions.

#### **Entry Age Normal**

The entry age normal cost method is used for this valuation. This method estimates the total cost of all projected plan benefits based on the assumptions shown in this report and the participant data you have supplied.

Costs are spread evenly from a member's date of hire to assumed retirement age. This annual cost is spread as a level percentage of compensation if benefits are salary related or as a level dollar amount if not salary related. The sum of each member's annual cost is the normal cost.

There are some accumulated costs for past years. The value of these past costs is the actuarial accrued liability (AAL). Each year the unfunded actuarial accrued liability (UAAL) is the AAL less the actuarial value of assets, but not less than zero. The UAAL is adjusted when there are plan or assumption changes (a liability base is created).

#### Actuarial Gains/Losses

An actuarial gain or loss occurs when actual plan experience differs from what was assumed. The actuarial gain or loss is calculated separately but the total UAAL is amortized over 20 years each year in accordance with the City's funding policy.

#### **Actuary Statement**

To the best of my knowledge, this report is complete and accurate. It complies with all relevant pension actuarial standards and legal requirements.

In preparing this report, I have relied on:

- reports of participants, salary, and service provided by the plan sponsor as of the last day of the 2008 plan year.
- information for any participants being paid by Principal Life Insurance Co, as of the last day of the 2008 plan year, as reported by Principal Life Insurance Company.
- market value of assets and benefit and expense transaction information for the preceding plan year, reported as of the last day of the 2008 plan year by Principal Financial Group and the plan sponsor.
- plan documents on file with Principal Life Insurance Company, including changes as noted on the Summary of Plan Provisions page of this report.

Appropriate tests of reasonableness and accuracy have been made and reviewed. The information provided is adequate to support the results in this report.

I confirm that as the enrolled actuary for this pension plan, I am completely independent of the plan sponsor and any of its officers or key personnel. Neither I nor anyone closely associated with me has any relationship known to me which would impair my independence.

In my opinion, each assumption and method chosen is reasonable (taking into account the experience of the plan and reasonable expectations), and which, in combination, offer my best estimate of anticipated experience under the plan.

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, this report is complete and accurate. It complies with all relevant pension actuarial standards and legal requirements.

07/28/2009

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07/28/2009

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#### Estimated cost of 1% Cost of Living increase to current retirees

|   | 04/01/2009<br>Valuation  | 04/01/2009 with 1% Cost of Living   |
|---|--|---|
| Non Police Chaum  | valuation  | 1% Cost of Living   |
| Non-Police Group  |  |   |
| Accrued Liability   | ¢22.227.510  | ¢22.544.010   |
| Participants in pay status  | \$23,326,518   | \$23,564,819  |
| Inactive participants   | 1,955,348  | 1,955,348   |
| Active participants   | 34,559,608   | 34,559,608  |
| Total   | \$59,841,474   | \$60,079,775  |
| Actuarial Value of Assets   | \$51,112,245   | \$51,112,245  |
| Unfunded Accrued Liability  | 8,729,229  | 8,967,530   |
| Each1% cost of living increase results in an a  | dditional \$238,301 of Accrued Liab                            | oility for the Non-   |
| Each1% cost of living increase results in an a  | 04/01/2009   | 04/01/2009 with   |
| Each1% cost of living increase results in an a<br>Police group.   |  | ·   |
| Each1% cost of living increase results in an a<br>Police group.<br>Police Group   | 04/01/2009   | 04/01/2009 with   |
| Each1% cost of living increase results in an a<br>Police group.  Police Group  Accrued Liability  | 04/01/2009<br>Valuation  | 04/01/2009 with<br>1% Cost of Living  |
| Each1% cost of living increase results in an a Police group.  Police Group  | 04/01/2009   | 04/01/2009 with<br>1% Cost of Living  |
| Each1% cost of living increase results in an a<br>Police group.  Police Group  Accrued Liability  | 04/01/2009<br>Valuation  | 04/01/2009 with<br>1% Cost of Living<br>\$2,718,644                         |
| Each1% cost of living increase results in an a Police group.  Police Group  Accrued Liability  Participants in pay status   | 04/01/2009<br>Valuation<br>\$2,691,895                         | 04/01/2009 with<br>1% Cost of Living<br>\$2,718,644<br>179,478              |
| Each1% cost of living increase results in an a Police group.  Police Group  Accrued Liability  Participants in pay status Inactive participants                     | 04/01/2009<br>Valuation<br>\$2,691,895<br>179,478              | 04/01/2009 with<br>1% Cost of Living<br>\$2,718,644<br>179,478<br>9,578,094 |
| Each1% cost of living increase results in an a Police group.  Police Group  Accrued Liability  Participants in pay status Inactive participants Active participants | 04/01/2009<br>Valuation<br>\$2,691,895<br>179,478<br>9,578,094 | 04/01/2009 with   |

Each1% cost of living increase results in an additional \$26,749 of Accrued Liability for the Police group.

The above does not include the amount necessary to purchase a 1% cost of living increase for retirees at Hartford.

# Accounting Information for SGAS 25/27

| Carryforward of Net Pension Obligation                    |             |
|---|-------------|
| a) Annual required contribution for 2008 plan year        | \$1,578,653 |
| b) Interest on net pension obligation                     | 0           |
| c) Adjustment to annual required contribution             | 0           |
| d) Annual pension cost for 2008 plan year (a+b+c)         | 1,578,653   |
| e) Actual contributions made                              | 1,981,817   |
| f) Increase / (decrease) in net pension obligation        | (403,164)   |
| g) 2008 beginning of year net pension obligation          | 0           |
| h) 2008 end of year net pension obligation                | \$(403,164) |
|   |             |
| Annual Pension Cost for 2009 Plan Year                    |             |
| a) Normal cost with interest                              | \$1,452,892 |
| b) Amortization with interest                             | 1,058,859   |
| c) Annual required contribution (a+b, not less than zero) | 2,511,751   |
| d) Interest on net pension obligation                     | (31,245)    |
| e) Adjustment to annual required contribution             | 40,302      |
| f) Annual pension cost (c+d+e)                            | \$2,520,808 |

| Carryforward of Net Pension Obligation |       |               |           |                   |             |               |           |           |              |                 |            |
|--|-------|---------------|-----------|-------------------|-------------|---------------|-----------|-----------|--------------|-----------------|------------|
| (a)                                    | (b)   | (c)           | (d)       | ( e )<br>Interest | (f)<br>ARC  | (g)<br>Amort. | (h)       | (i)       | (j)<br>Loss/ | ( k )<br>Change | (1)<br>NPO |
|  | Val'n | Amort         |           | On NPO            | Adjust.     | Factor        | APC       | Actual    | (Gain)       | In NPO          | Balance    |
| Year                                   | Rate  | <u>Period</u> | ARC       | (l py x b)        | (-l py / g) | (c yrs @ b%)  | (d+e+f)   | Deposit   | <u>(d-i)</u> | <u>(h-i)</u>    | (l py+k)   |
|  |       |               |           |                   |             |               |           |           |              |                 |            |
| 2002                                   | 7.75% | 20            | 1,190,163 | 0                 | 0           | 10.0035       | 1,190,163 | 1,190,163 | 0            | 0               | 0          |
| 2003                                   | 7.75% | 20            | 1,389,561 | 0                 | 0           | 10.0035       | 1,389,561 | 1,389,561 | 0            | 0               | 0          |
| 2004                                   | 7.75% | 20            | 1,529,727 | 0                 | 0           | 10.0035       | 1,529,727 | 1,529,727 | 0            | 0               | 0          |
| 2005                                   | 7.75% | 20            | 1,473,052 | 0                 | 0           | 10.0035       | 1,473,052 | 1,473,052 | 0            | 0               | 0          |
| 2006                                   | 7.75% | 20            | 1,599,777 | 0                 | 0           | 10.0035       | 1,599,777 | 1,599,777 | 0            | 0               | 0          |
| 2007                                   | 7.75% | 20            | 1,550,658 | 0                 | 0           | 10.0035       | 1,550,658 | 1,550,658 | 0            | 0               | 0          |
| 2008                                   | 7.75% | 20            | 1,578,653 | 0                 | 0           | 10.0035       | 1,578,653 | 1,981,817 | (403,164)    | (403,164)       | (403,164)  |
| 2009                                   | 7.75% | 20            | 2,511,751 | (31,245)          | 40,302      | 10.0035       | 2,520,808 |           |              |                 |            |

# Accounting Information for SGAS 25/27

| 20 | 2009 Schedule of Funding Progress            |              |  |  |  |  |
|----|--|--------------|--|--|--|--|
| a) | Actuarial value of assets                    | \$61,698,621 |  |  |  |  |
| b) | Actuarial accrued liability (AAL) entry age  | 72,290,941   |  |  |  |  |
| c) | Funded (unfunded) AAL (a-b)                  | (10,592,320) |  |  |  |  |
| d) | Funded ratio (a/b)                           | 85.3%        |  |  |  |  |
| e) | Covered payroll                              | 31,708,344   |  |  |  |  |
| f) | FAAL / UAAL as a percentage of payroll (c/e) | -33.4%       |  |  |  |  |